Orange Vale Water Company

2010 USBR Water Management Plan

September 2009

Revised February 2012

J. CROWLEY GROUP
WATER RESOURCES PLANNING AND POLICY

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Section 1: Description of the District

District Name: Orange Vale Water Company
Contact Name: Sharon Wilcox
Title: General Manager
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Web Address: none

A. History

The Orange Vale Water Company (OVWC) is located in the northeast portion of Sacramento County, California, approximately 23 miles northeast of downtown Sacramento. In 1896, OVWC was incorporated as a general corporation for the purpose of delivering agricultural water to its landowners (shareholders) and members in an area of 3,078 acres. Land within the service area began experiencing gradual residential and commercial development in the 1950s. In 1994, OVWC adopted the California Non-Profit Mutual Benefit Corporation Law, and its shareholders became members. There are only a few, small orchards left in the service area with no significant agricultural demand. Currently there are approximately 5,500 total connections made up of mostly single/multiple family residential customers, with less than 200 commercial customers.

1. Date District formed and original size

Provide date district formed: *May 23, 1896*
Date of first Reclamation contract*: 1974 14-06-200-152A-IR1 (San Juan Water District)*
Original size (acres)*: 3,078*
Current year (last completed calendar year)*: 2008*

2. Current size, population, and irrigated acres

Size (square miles)	4.8
Population served	18,021
Irrigated acres	0

3. Water supplies received in current year

Water Source	2008, AFY
Federal urban water	4,982
Federal agricultural water	0
State water	0
Local/other	0
Local surface water	0
Upslope drain water	0
District groundwater	0
Transferred water	0
Reclaimed water	0
Other (define)	0
Total	4,982

4. Annual entitlement under each right and/or contract

	AF	Source	Contract #	Contract Restrictions
Urban AF/Yield (AF/Y)	Maximum volume undefined	SJWD	2004 Water Supply Agreement with 2006 and 2007 amendments	Temporary reductions due to maintenance or other O&M. During shortages water will be allocated equitably between the retailers.
Agriculture AF/Y	None			
Other AF/Y	None			

OVWC purchases its water supply from the San Juan Water District, a USBR contractor. San Juan Water District (SJWD) maintains a 24,200 acre-feet per year (AFY) contract with the USBR, and also has 33,000 AFY in water rights. The OVWC and SJWD maintain an interim supply agreement dated January 1, 2004. The agreement does not list specific supply volumes or requested volumes, but states that SJWD will deliver sufficient supply to OVWC to meet their needs. SJWD is able to reduce supply deliveries to OVWC in times that SJWD's rights and contracts are reduced by either the USBR or other parties. Specific reductions are not listed in the OVWC-SJWD contract but will be determined for each individual case.

5. Anticipated land- use changes

The majority of the Company's service area is zoned residential. Review of the Sacramento County General Plan indicates there are no significant changes to the zoning or land use designation within the Company's boundary.

6. Cropping patterns

There are no significant agriculture users in the District's service area.

7. Major irrigation methods (by acreage)

There are no significant agriculture users in the District's service area.

B. Location and Facilities

A map of the OVWC service area and supply connections is presented in Attachment A.

1. Incoming flow locations and measurement methods

Location Name	Physical Location	Type of Measurement Devise	Accuracy
Hazel	Oak at Hazel	Magnetic meter	95
Chestnut	Oak at Chestnut	Magnetic meter	95
Main	Oak at Main	Magnetic meter	95
Central	Central at Filbert	Magnetic meter	95
Greenback	Greenback at River Rock	Magnetic meter	95
Central Manual	Central east of Main	Magnetic meter	95

The San Juan Water District recently installed all new meters on the supply connections to Orange Vale Water Company. Final implementation of this project is still ongoing and final calibration data will be available upon project completion.

2. Current Year Agricultural Conveyance System

Not applicable.

3. Current Year Urban Distribution System

The District contains approximately 88 miles of transmission pipelines ranging in size from 2 to 30 inches in diameter. The pipe type breakdown is listed in the table below.

Size	Length, miles	Type
2-6-inch	22.9	PVC/AC
8-12-inch	60.6	PVC/AC/DIP
14-20-inch	1.8	DIP
22-30-inch	2.0	DIP/CML Steel

Due to the age of the distribution system, the actual length of each type of pipe material is unknown. OVWC maintains pipe type and length information as presented in the table, using

pipe types per size range. Any effort to report pipe length by pipe type would be estimated, and therefore the specific table requested in the USBR plan is presented as below.

Miles AC Pipe	Miles Steel Pipe	Miles Cast Iron Pipe	Miles - Other
unknown	unknown	unknown	unknown

4. Storage facilities (tanks, reservoirs, regulating reservoirs)

The Company does not have storage facilities at this time. Land has been purchased for a future storage site when storage will be required.

5. Outflow locations and measurement methods (Agricultural only)

Not applicable.

6. Description of agricultural spill recovery system

Not applicable.

7. Agricultural delivery system operation

Not applicable.

8. Restrictions on water source(s)

The supply agreement between Orange Vale Water Company and San Juan Water District allows the supply during shortage conditions to be reduced to Orange Vale Water Company in an equitable manner amongst all the San Juan Family retailers. Orange Vale Water Company will enact its water shortage contingency plan during shortage conditions to manage demand and supplies appropriately.

9. Proposed changes or additions to facilities and operations for the next 5 years

The Company maintains an ongoing main replacement program. The Company is currently in the study phase for a new well to serve as backup water supply. Capital project decisions will be based on the study outcome.

C. Topography and Soils

1. Topography of the district and its impacts on water operations and management

The terrain is slightly hilly with drainage creeks and streams in each valley. The area slopes northeast to southwest, with drainage discharging into the American River on the south side of the District boundary or into tributary creeks at the District's south and west boundaries.

2. District soil associations map (Agricultural only)

Not applicable.

3. *Agricultural limitations resulting from soil problems (Agricultural only)*

Not applicable.

D. Climate

1. General climate of the district service area

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg Precip. (in.)	4.4	3.8	3.9	1.9	0.6	0.2	0.1	0.1	0.5	1.5	3.4	3.5	23.9
Avg Temp. (F)	46	51	54	59	65	72	77	76	73	66	54	47	62
Max. Temp. (F)	73	78	86	94	106	112	115	114	108	102	86	74	115
Min. Temp. (F)	17	19	26	30	35	43	50	45	46	32	26	16	16
ETo (inches)	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1

Weather Station ID: Western Regional Climate Center, Folsom Dam (043113)
Date Period: Year 1955 to Year 1993
Average wind velocity: Not available as climate data. During wet season, wind generally moves from southwest to northeast. In the dry season, wind generally moves from west to east.

Average annual frost-free days: 352.

2. Impact of any microclimates on water management within the service area

There are no microclimates within the Company service area.

E. Natural and Cultural Resources

1. Natural resources area within the service area

There are no natural resources within the Company's service area.

2. Description of district management of these resources in the past or present

The Company does not provide water to any natural resource areas.

3. *Recreational and/or cultural resources areas within the service area*

None.

F. Operating Rules and Regulations

1. Operating rules and regulations

Operating Rules and Regulations are included in Attachment E.

2. Water allocation policy

OVWC is an urban water supplier. Water is provided to each customer as needed per the Operating Rules and Regulations included in Attachment E.

3. Official and actual lead times necessary for water orders and shut-off

OVWC is an urban water supplier. New customer connections and shutoff policies are part of the Operating Rules and Regulations included in Attachment E.

4. Policies regarding return flows (surface and subsurface drainage from farms) and outflow

None.

5. Policies on water transfers by the district and its customers

The Company does not transfer water and therefore has no standard transfer policies.

G. Water Measurement, Pricing, and Billing

1. Agricultural Customers

Not applicable.

2. Urban Customers

a. Total number of connections: 5,471

b. Total number of metered connections: 5,471

c. Total number of connections not billed by quantity: 0

d. Percentage of water that was measured at delivery point: 100 percent

e. Percentage of delivered water that was billed by quantity: 100 percent

f. Measurement device table. The compound and turbo meters listed are also included in the totals for each respective meter by size.

Meter Size and Type	Number	Accuracy (+/-percentage)	Reading Frequency (Days)	Calibration Frequency (Months)	Maintenance Frequency (Months)
5/8-3/4"	76	90-101%	N/A	48-72	48-72
1"	5,232	90-101%	60	48-72	48-72
1 ½"	87	90-101%	60	48-72	48-72
2"	43	90-101%	60	48-72	48-72
3"	3	90-101%	60	48-72	48-72
4"	21	90-101%	60	48-72	48-72
6"	7	90-101%	60	48-72	48-72
8"	0	90-101%	60	48-72	48-72
10"	2	90-101%	60	48-72	48-72
Compound	45	90-101%	60	48-72	48-72
Turbo	30	90-101%	60	48-72	48-72

Additional responses to USBR comments are included in Attachment J.

3. Agriculture and Urban Customers

a. Current year agricultural and/or urban water charges – including rate structure and billing frequency

All OVWC connections are metered and charged on metered rates. The rates consist of three parts; basic, volumetric, and assessment. OVWC maintains a tiered water rate structure with volumetric prices increasing for increased use. Each customer is charged a fixed connection fee based on connection size. The assessment is $7.00 per parcel for five acres or fraction thereof. Commodity charges are calculated by number of units used plus basic rate plus the assessment. Each rate is presented below in Section b. Meters are read bi-monthly and customers are billed bi-monthly.

OVWC is in the middle of a five-year rate increase, with both fixed charges and tiered rates increasing approximately five percent each year for five years

The OVWC rate structure is provided in Attachment B. A sample customer bill is provided in Attachment C.

b. Annual charges collected from customers

Metered Fixed Charges			
Charges	Bi-Monthly Unit Rate	Number of Bills Collected	2008 $ Collected
¾-inch meter	$25.45	361	10,720
1-inch meter	$25.45	29,282	1,360,212
1.5-inch meter	$50.40	506	62,900
2-inch meter	$80.35	207	71,685
3-inch meter	$160.20	24	6,689
4-inch meter	$250.00	204	65,909
6-inch meter	$499.60	151	39,645
8-inch meter	$898.90	33	3,422
10-inch meter	$1,448.00	12	18,940
12-inch meter	$2,147.00	3	480
Total:	--	30,783	1,640,602

Single Family Residential Metered Volumetric Charges			
Charges	Charge units 1 unit = 100 cubic feet	2008 Units billed, 100 cubic feet	2008 $ Collected
$0.28 per unit	0-36 units	956,812	$267,907
$0.35 per unit	37-170 units	590,902	$206,815
$0.42 per unit	171+ units	196,603	$82,573
Total:	--	--	$557,296

Multi-Family and Non-Residential Metered Volumetric Charges			
Charges	Charge units 1 unit = 100 cubic feet	2008 Units billed, 100 cubic feet	2008 $ Collected
$0.32 per unit	all	425,990	$136,316

Revenue collected on any given year is not equal to units multiplied by unit rate due to common occurrences such as delinquent accounts, customer changes, etc. Additional responses to USBR comments are included in Attachment J.

c. Water-use data accounting procedures

Water use data for all customers is maintained in the billing system database. Currently, all data history is archived daily on tapes stored on site, and moved to off-site storage. Each metered customer's bill lists the meter values and water use for the current billing cycle, as shown on the attached sample bill in Attachment C. Customers may access their usage history by calling or visiting OVWC for a complete listing.

H. Water Shortage Allocation Policies

1. Current year water shortage policies

OVWC has established a five level water shortage contingency plan. Each level is assigned usage goals with established supply conditions that trigger implementation. Use monitoring procedures and frequency are identified for each level to help the District ensure the reduction goals are met. The contingency plan also identifies and prioritizes water uses to support water shortage use policies. The Water Shortage Contingency Plan is presented in Attachment D. OVWC and other members of the San Juan Family plan to participate in a future update to the shortage policy pending regional efforts to standardize shortage stages.

Additional responses to USBR comments and future water shortage planning efforts are included in Attachment J.

2. Current year policies that address wasteful use of water

As part of the California Urban Water Conservation Council's 16 best management practices, OVWC has implemented, among others, BMP 13, Water Waste Prohibition and Enforcement. The wasteful use of water policy is presented in Attachment E, along with other Company rules and regulations.

Section 2: Inventory of Water Resources

A. Surface Water Supply

1. Acre-foot amounts of surface water delivered to the purveyor by each of the contractor's sources

See Water Inventory Table 1 at end of section. The supply meters are owned and operated by the San Juan Water District (SJWD). Once OVWC was fully metered, SJWD and OVWC noticed that the supply volumes were less than OVWC customer usage, potentially indicating under-reading supply meters. In response, SJWD initiated a project to replace all the supply meters and implement calibration procedures more frequently. Installation and calibration of the new meters is almost complete. Because of the inaccurate supply readings, the supply totals reported in the Urban Supply Tables at the end of this section are actually less than the customer usage reported by OVWC.

2. Amount of water delivered to the district by each of the district sources for the last 10 years

See Water Inventory Table 8 at end of section.

B. Groundwater Supply

1. Acre-foot amounts of groundwater pumped and delivered by the contractor

See Water Inventory Table 2 at end of section. OVWC does not currently use groundwater for supply. OVWC maintains two wells for emergency backup, but they have not been required for many years.

2. *Groundwater basin(s) that underlies the district*

The groundwater basin underlying the Company is the North American Subbasin, part of the larger Sacramento Valley groundwater basin. Water bearing formations beneath the District occur in two major strata. The upper water-bearing units includes the geologic formations of the Victor, Fair Oaks, and Laguna Formations and is typically unconfined. The lower water-bearing unit consists primarily of the Mehrten Formation, which exhibits confined conditions. The Mehrten Formation is the most productive fresh water-bearing unit in the eastern Sacramento Valley, though some of the permeable layers of the Fair Oaks Formation produce moderate amounts of water. Supply wells in the Sacramento Region draw water primarily form the Mehrten and Fair Oaks formations and typically produce 500-1,500 gpm of good to excellent quality water. Much of the recharge of these aquifer systems comes from the Sacramento and American Rivers and their tributaries where gravel deposits exist. To a lesser extent, aquifer recharge also occurs where the Merhten Formation reaches the surface in the foothills in eastern Sacramento and western El Dorado County. Groundwater levels have been generally declining in Sacramento County for the last 50 years, with many areas declining at a rate of 1.5 to 2.0 feet per year. A groundwater depression that was evident in 1968 significantly expanded and deepened in 1996.

The following table presents data on the Company's groundwater basin. Total usable capacity and safe yield have not yet been determined. The Sacramento Groundwater Authority will conduct such studies over the coming years. Usable capacity is assumed to be the yield calculated in the Department of Water Resources' American Basin Conjunctive Use Project Feasibility Study (1997). The study assumed a specific yield of 7 percent and an assumed thickness of 200 feet. Applying these assumptions to the total basin area results in a usable capacity of 70.2 million acre-feet.

Name	Size (Square Mile)	Usable Capacity (AF)	Safe Yield (AF/Y)
Sacramento Valley, North American Subbasin (5-21.64)	548	70,200,00	To be determined

3. Map of district-operated wells and managed groundwater recharge areas

The Company has two wells that are only used for emergency backup supply. The wells are shown along with surface water connections in Attachment A. OVWC does not maintain any groundwater recharge areas.

4. Description of conjunctive use of surface and groundwater

The Company does not use groundwater on a regular basis for conjunctive use. However, the other members of the San Juan Family are able to utilize their groundwater supply capacity when surface water supplies are limited or reduced, making surface water available for OVWC. The San Juan Family consists of the San Juan Water District, Orange Vale Water Company, Citrus Heights Water District, Fair Oaks Water District, and the City of Folsom. The Family collectively implements conjunctive use through this use of groundwater and surface supplies between all the Family members.

5. Groundwater management plan

The Sacramento Groundwater Authority is the lead agency for the groundwater management plan. The title page and table of contents is provided in Attachment F. The full document is available online at www.sgah2o.org.

6. Groundwater banking plan

There are no active groundwater banking programs within OVWC or the San Juan Family service area.

C. Other Water Supplies

1. "Other" water used as part of the water supply

There are no "Other" sources for water as identified in Water Inventory Table 1 at the end of this section.

D. Source Water Quality Monitoring Practices

1. Potable water quality

Three significant groundwater quality impairment areas with contamination are under active remediation at McClellen AFB, Union Pacific Railroad, and the Aerojet Superfund Site. The first two sites are down gradient from the OVWC service area and are not expected to impact groundwater quality within the Company's wells. The third site, Aerojct, is south of the OVWC service area and on the other side of the American River. However, a recent study (Montgomery 2000) indicates a contaminant plume (including TCE and PCE) extends under the American River and into the North American subbasin near Hazel Avenue. Aerojet General Corporation is actively operating treatment systems for parts of the contamination plume. OVWC recently discovered perchlorate in both of their emergency standby wells. This is a recent development and the Company is conducting additional studies to develop a response plan.

There are no known water quality issues with the surface water supply. The 2008 San Juan Water District Water Quality Report is presented in Attachment G.

2. Agricultural contractors concerns

Not applicable.

3. Description of the agricultural water quality testing program and the role of each participant, including the district, in the program

Not applicable.

4. Current water quality monitoring programs for surface water by source (Agricultural only)

Not applicable.

E. Water Uses Within the District

1. Agricultural

Not applicable.

2. Types of irrigation systems for each crop in current year

Not applicable.

3. Urban use by type in current year

Customer Type	Number of Connections	Year 2008 Use (AF)
Single-family	4,871	3,980
Multi-family	330	459
Commercial	172	256
Industrial	0	0
Institutional	46	205
Landscape irrigation	52	82
Wholesale	0	0
Reclaimed	0	0
Other (specify)	0	0
Unaccounted for	0	449
Total	5,471	5,431

Due to the inaccurate San Juan Water District supply meter values, the supply totals reported in the Urban Supply tables at the end of this section are actually less than the customer usage reported by OVWC.

4. Urban wastewater collection/treatment systems serving the service area

All of the wastewater generated in the District is collected and treated at the Sacramento Regional Wastewater Treatment Plant (SRWTP).

Treatment Plant	Treatment Level (1, 2, 3)	Acre-feet	Disposal to
SRWTP	2	147,860	Sacramento River
SRWTP	3	1,052	Reuse outside of OVWC service area
	Total	148,912	
Total discharged to ocean and or saline sink		0	

Information from http://www.srcsd.com/fastfacts.php

5. Groundwater recharge/management in current year

There is no formal groundwater recharge/management/banking other than non-monitored natural recharge.

6. Transfers and exchanges into or out of the service area

There were no transfers in 2008. The USBR does not consider the purchase of wholesale water from San Juan Water District to be a transfer.

7. Trades, wheeling, wet/dry year exchanges or other transactions

None.

8. Other uses of water

None.

F. Outflow from the District (Agricultural only)

Not applicable.

G. Water Accounting (Inventory)

See Water Supply Tables at end of section for all required information.

1. Water Supplies Quantified

See Water Supply Tables at end of section for all required information. The San Juan Water District supply meters are read bi-monthly. Each reading is divided by two and listed as a monthly flow in the table.

2. Water Used Quantified

See Water Supply Tables at end of section for all required information.

3. Overall Water Inventory

See Water Supply Tables at end of section for all required information. The supply meters are owned and operated by the San Juan Water District (SJWD). Once OVWC was fully metered, SJWD and OVWC noticed that the supply volumes were less than OVWC customer usage, potentially indicating under-reading supply meters. In response, SJWD initiated a project to replace all the supply meters and implement calibration procedures more frequently. Installation and calibration of the new meters is almost complete. Because of the inaccurate supply readings, the supply totals reported in the Urban Supply Tables as the end of this section are actually less than the customer usage reported by OVWC.

H. Assess Quantifiable Objectives

There are no quantifiable objectives identified for OVWC in the CALFED Water Use Efficiency Program goals.

Year of Data	2008	Enter data year here

Table 1

Surface Water Supply

2008 Month	Federal Urban Water (acre-feet)	Federal Agric. Water (acre-feet)	State Water (acre-feet)	Local Water (acre-feet)	Other Water (define) (acre-feet)	Total (acre-feet)
January	154	0	0	0	0	154
February	154	0	0	0	0	154
March	309	0	0	0	0	309
April	309	0	0	0	0	309
May	646	0	0	0	0	646
June	646	0	0	0	0	646
July	723	0	0	0	0	723
August	723	0	0	0	0	723
September	483	0	0	0	0	483
October	483	0	0	0	0	483
November	177	0	0	0	0	177
December	177	0	0	0	0	177
TOTAL	4,982	0	0	0	0	4,982

Table 2

Ground Water Supply

2008 Month	District groundwtr (acre-feet)	Private groundwater (acre-feet)

*normally estimated

Table 3

Total Water Supply

2008 Month	Surface Water Supply (acre-feet)	District Groundwater (acre-feet)	Recycled M&I Wastewater (acre-feet)	Total District Water Supply (acre-feet)
			0	
			0	
			0	
			0	
			0	
			0	
			0	
			0	
			0	
			0	
			0	
			0	

Recycled wastewater is treated urban wastewater that is reused

Table 4

Distribution System

2008 Area or Line	Length (feet)	Leaks (acre-feet)	Breaks (acre-feet)	Flushing/Fire (acre-feet)	Total (acre-feet)
Service breaks/leaks (107)	n/a	0	4	0	
Main breaks/leaks (1)	n/a	0	1	0	
Hydrants (23 tests)	n/a	0	0	1	
Flushing (166 events)	n/a	0	0	1	

Table 6

2008 District Water Inventory

	0
	0
	0
	0
2008	
	5,431

Table 8

Annual Water Quantities Delivered Under Each Right or Contract

Year	Federal Urban Water (acre-feet)	Federal Agric. Water (acre-feet)	State Water (acre-feet)	Local Water (acre-feet)	Other Water (define) (acre-feet)	Total (acre-feet)
	4,670	0	0	0		
	4,549	0	0	0		
	4,457	0	0	0		
	4,377	0	0	0		
	3,816	0	0	0		
	4,165	0	0	0		
	3,376	0	0	0		
	3,642	0	0	0		
	4,452	0	0	0		

Section 3: Best Management Practices (BMPs) for Agricultural Contractors

Not applicable.

Section 4: BMPs for Urban Contractors

OVWC maintains a comprehensive and successful water conservation program. The Company is a member of the California Urban Water Conservation Council (CUWCC) and annually reports best management practice (BMP) results. Billing by commodity rates for 100 percent of the Company's customers began in 2005, and all the CUWCC BMPs are offered to customers. OVWC maintains an annual budget of approximately $121,000 for its water conservation program. Annual monitoring and reporting for both the CUWCC and USBR requirements are accomplished through the CUWCC annual reporting website. In addition, OVWC is a signatory to the Water Forum Agreement, and submits its BMP efforts, status, and results annually to the Water Forum.

Actions and descriptions of each CUWCC BMP are presented in this section. The next three year's budgets for each BMP are included in the tables at the end of this section. The CUWCC 2009 and 2010 Annual Reporting Period Coverage Report is presented in Attachment K.

CUWCC Reporting and Compliance

OVWC has chosen to utilize the Gallons Per Capita Per Day (gpcd) compliance option offered by the CUWCC, thus committing to reduce its gpcd water use by 18 percent by the year 2018 from the established baseline (shown in Table 4-1). OVWC chose this compliance option to be consistent with the efforts and reporting structure of the SBx7 7 requirement of a 20 percent reduction by the year 2020. Table 4-1 represents OVWC's CUWCC compliance baseline representing a 10-year average for years 1997 through 2006, as specified by the CUWCC MOU. This data is also presented in the CUWCC coverage report included in Attachment K.

Table 4-1. 10-year average baseline calculation

Year	Population	AF	GPCD	10-yr Avg GPCD
1997	13,566	6,066	399	--
1998	14,031	5,898	375	--
1999	14,184	5,838	367	--
2000	14,210	5,528	347	--
2001	14,299	5,791	362	--
2002	14,389	5,471	339	--
2003	14,466	4,770	294	--
2004	14,679	5,206	317	--
2005	14,806	4,220	254	--
2006	14,835	4,553	274	333

Table 4-2 presents the implementation schedule of the CUWCC GPCD compliance option. OVWC will implement its conservation program as described below to meet the gpcd goals in the compliance table.

Table 4-2 CUWCC GPCD Compliance table

Year	Compliance Report	Target GPCD	Highest acceptable GPCD bound
2010	1	321	333
2012	2	309	321
2014	3	297	309
2016	4	285	297
2018	5	273	273

Conservation Program

The current OVWC conservation program is summarized in Table 4-3. Because OVWC is using the gpcd compliance method, only CUWCC BMP 1 and 2 are required. However, OVWC has chosen to also implement other BMP programs as indicated in the table under the "Optional" heading. Each program is described below.

Table 4-3. OWVC Conservation Program

CUWCC BMP No.	USBR No.	BMP Name
		Required Programs with gpcd Compliance
1.1.1	12	Conservation coordinator.
1.1.2	13	Water waste prohibition.
1.1.3	10	Wholesale agency assistance programs – Not applicable
1.2	3	System water audits, leak detection and repair.
1.3	4	Metering with commodity rates for all new connections and retrofit of existing connections.
1.4	11	Conservation pricing.
2.1	7	Public information programs.
2.2	8	School education programs.
		Optional Programs
3.1	1	Water survey programs for single-family residential and multi-family residential connections.
3.2	2	Residential plumbing retrofit.
3.3	6	High-efficiency washing machine rebate programs.
3.4	14	Residential HET replacement programs.
3.5	N/A	WaterSense specifications for residential development.
4.0	9	Conservation programs for commercial, industrial, and institutional accounts.
5.0	5	Large landscape conservation programs and incentives.

BMP 1.1.1 Conservation Coordinator

OVWC has an established conservation coordinator position whose duties include the following:

- Coordination and oversight of conservation program and BMP implementation
- Preparation and submittal of the CUWCC BMP Implementation Report
- Preparation and submittal of the USBR 5-Year Water Management Plan
- Coordination of conservation efforts and programs with District executive team, other staff, and other agencies
- Preparation of annual BMP budgets
- Participation in CUWCC meetings
- Preparation of conservation elements in the Company's Urban Water Management Plan

The conservation coordinator is a full-time position and OVWC has budgeted $60,000 annually for the position. In addition to the coordinator, there are also 3 full-time-equivalents budgeted to support and implement the conservation program. The coordinator's information is:

Keoki Spaeth
Orange Vale Water Company
9031 Central Avenue
Orangevale, CA 95662
916-792-6754

BMP 1.1.2 Water Waste Prohibition

Water waste prohibition is an ongoing component of the OVWC's water conservation program. The OVWC water waste ordinance includes the following water waste prohibitions:

- Water shall not be allowed to discharge, flow, or run to waste into any gutter, sanitary sewer, water course or storm drain, or to any adjacent lot
- Water fixtures or heating or cooling devices shall not be allowed to leak or discharge
- Ponds, swimming pools, and/or fountains without water recirculating devices are not permitted
- Customer leaking pipes, fixtures, and/or sprinklers shall be repaired immediately
- Irrigation between the hours of 10:00 AM and 6:00 PM

- Use of a water hose not equipped with a control nozzle of water are not permitted
- Use of a hose to clean sidewalks, driveways, patios, streets, and commercial parking lots is not permitted, unless specifically required for health and safety reasons

The water waste prohibition program is implemented depending on normal, dry and drier year conditions. However, OVWC employees regularly patrol the service area and receive feedback from customers to ensure no water waste. The OVWC Water Waste Ordinance is part of the Rules and Regulations included in Attachment E.

BMP 1.1.3 Wholesale Agency Assistance Programs

OVWC is a retail water agency and, as such, BMP 10 is non applicable. However, as a wholesale customer, OVWC continues to coordinate its collective conservation efforts with SJWD.

BMP 1.2 System Water Audits, Leak Detection, and Repair

OVWC has conducted water audits and leak detection and repairs annually since 2002 using the methodology consistent with that described in the American Water Work Association (AWWA) *Water Audit and Leak Detection Guidebook*. A leak detection contractor is hired to survey approximately 10 percent of the system per year. Results indicate that very few leaks are detected, with a range of 0-4 leaks per year detected through the survey. OVWC operation and maintenance crews also monitor for leaks through visual inspection and repair leaks as detected. As indicated in the Urban Tables in Section 2, OVWC estimates 2008 leaks only accounted for five acre-feet. The budget listed in the budget tables only covers the leak detection contractor costs. All OVWC staff time and repair costs are part of the regular staffing budget and not coded to this specific BMP.

BMP 1.3 Metering with Commodity Rates for all New Connections and Retrofit of Existing

The OVWC service area is fully metered for all customer sectors including single-family, multi-family, commercial, institutional, and landscape irrigation. All OVWC customers are billed monthly (starting in May 2011) based on commodity rates, including tier prices for single family residential customers. Meters will continue to be installed for all new connections in the service area. See Section 1-3 for further description of rate structure.

BMP 1.4 Conservation Pricing

All OVWC connections are metered and charged on metered rates. The rates consist of three parts; basic, volumetric, and assessment. OVWC maintains a tiered water rate structure with volumetric prices increasing for increased use. Each customer is charged a fixed connection fee based on connection size. The assessment is $7.00 per parcel for five acres or fraction thereof. Commodity charges are calculated by number of units used plus basic rate plus the assessment. Each rate is presented below in Section b. Meters are read bi-monthly and customers are billed bi-monthly. The rate schedule is included in Attachment B, Rate Structure.

OVWC conducted a rate study program and implemented a rate increase program in 2010. The program will adjust rates annually so that 70 percent of revenue will come from volumetric charges in five years.

BMP 2.1 Public Information Programs

OVWC provides information on its water conservation program and on water conservation to the public through speakers for community groups, events, and schools. In addition, customers receive information through paid and public service advertising. OVWC coordinates with other governmental agencies, industry groups, public interest groups, and the media to continue offering information to customers. Part of the OVWC public information program is conducted through the Regional Water Authority public information program..

BMP 2.2 School Education Programs

OVWC participates with San Juan's member water agencies in a school education program to provide institutional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. The school education program consists of the following components:

- Books
- Annual poster contests
- Maps, charts, and posters
- Professional plays
- Teacher grants (in conjunction with poster contest)

OVWC sponsors an annual poster contest with 4th, 5th, and 6th grade students in the area. The winners receive monetary awards for their entries, which display a particular conservation theme. This program has been in place for several years. OVWC also provides T-shirts and certificates of award for each participant.

In addition, since 2002, OVWC has offered class presentations to 4th, 5th, and 6th grade students as part of the school education program. OVWC held 11 class presentations in 2008.

OVWC maintains a conservation education counter in the office lobby, which provides items such as book covers, conservation stickers, pencils, rulers, poster contest winning calendars, and other items encouraging smart water use. Students, parents, and teachers are informed of these give-away items and visit the office on a regular basis.

BMP 3.1 Water Survey Programs for Single-Family and Multiple-Family Residential Customers

OVWC has implemented a water survey program for single-family and multi-family residential customers in the service area since 2003. Surveys are offered to all single-family and multi-family customers every year. OVWC will continue to offer these audits to all residential customers.

This program includes the following:

- Customers are notified of availability of survey in bi-monthly bill
- Surveys made available to all OVWC customers
- Instruct customers of meter reading program and applicable tiered rates
- Detection of outside leaks, and instruct homeowners on interior leak detection
- Provide low-flow devices as appropriate
- Recommend ultra-low flow toilet (ULFT) replacements
- Check irrigation system for leaks/overlap and determine timer functioning and seasonal scheduling
- Measure landscape area and develop irrigation schedule
- Provide customer with evaluation results, water saving recommendations and other information

BMP 3.2 Residential Plumbing Retrofit

OVWC provides plumbing retrofit kits as part of the conservation program. These kits are available for all customers at their request and at the counter in the OVWC office lobby. OVWC continues to offer this program through direct mail, bill stuffer, bill messages, and door-to-door targeting methods. The low-flow conservation kits are only available upon customers' request. OVWC keeps records of names and addresses where the retrofit kits have been installed.

The plumbing retrofit kits consist of the following:

- High quality 2.5 gpm showerheads

- 2.2 gpm faucet aerators
- Toilet displacement device, dye tablets, and hose nozzles

BMP 3.3 High-Efficiency Washing Machine Rebate

OVWC implements this rebate program with the assistance of the local power company, Sacramento Municipal Utilities District (SMUD). SMUD's rebate program is based on rebates for efficient appliances, but also includes an amount for water efficiency in the overall rebate. SMUD notifies OVWC of number of rebates issued, and OVWC refunds SMUD for the rebates. OVWC offers up to $75 in rebates depending on rating of washing machine.

BMP 3.4 Residential High Efficiency Toilet (HET) Replacement Programs

OVWC, in conjunction with SJWD, has maintained toilet replacement program since 2002. High-water-usage toilets are replaced by 1.6-gallon per flush toilets in single-family and multi-family residences. Rebates up to $175 per toilet replacement are offered to customers. The new toilet is inspected and the old toilet is removed from property and destroyed. The budget is based on implementation experience and will be adjusted if necessary to reflect program response.

BMP 4.0 Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

OVWC provides conservation programs for each CII account. All CII accounts are offered audits through billing notices and stuffers, as well as information provided in the lobby.

The CII audit includes:

- Site visit
- Evaluation of water-using devices
- Report identifying recommended efficiency measures and potential incentives available to the customer

OVWC will continue to offer audits to the CII accounts and has budgeted $2,000 per year for at least the next three years for this BMP. The budget is based on past customer acceptance, but OVWC will adjust the budget accordingly to reflect program demands.

BMP 5.0 Large Landscape Conservation Programs and Incentives

OVWC provides education and assistance to non-residential customers with support and incentives to improve their landscape water-use efficiency. In addition, OVWC provides landscape water use efficiency information to all existing and new customers.

The large landscape conservation program is applied to all accounts with dedicated irrigation meters and mixed-use metered accounts. OVWC offers mini-audits as part of their customer service program, but few customers request the audit.

The Large Landscape audit includes:

- Irrigation system check
- Distribution uniformity analysis
- Review and/or develop irrigation schedules
- Measure landscape area and total irrigable area
- Customer report and information

OVWC will identify which of its commercial institutional/government accounts have one-acre or larger irrigated landscape areas and do not have a dedicated landscape meter. OVWC will then identify the cost and benefits of installing dedicated landscape meters to the identified accounts.

3-Year BMP Budget for Expenditures and Staff Effort

2010 Year Cost and Staff Time Summary

BMP No.	BMP Name	Cost $	Estimated Staff Time (Hours)
1.1	Conservation coordinator	60,000.00	2,000
1.1	Water waste prohibition	4,633.58	130
1.2	System water audits, leak detection and repair	4,104.99	50
1.3	Metering with commodity rates for all new connections and retrofit of existing connections	In other dept. costs	0
1.4	Conservation pricing	2,892.74	16
2.1	Public information programs	8,856.54	110
2.2	School education programs	10,500.22	58
3.1	Water survey programs for single-family residential and multi-family residential connections	10,200.00	210
3.2	Residential plumbing retrofit	2,400.50	12
3.3	High-efficiency washing machine rebate programs	3,260.00	10
3.4	Residential toilet replacement programs	6,421.58	45
3.5	WaterSense Specification for new development	0	0
4.0	Conservation programs for commercial, industrial, and institutional accounts	1,000.28	10
5.0	Large landscape conservation programs and incentives	3,791.00	102
	Total:	**$118,061**	**2,753**

2011 Budget Summary

BMP No.	BMP Name	Budget $	Estimated Staff Time (Hours)
1.1.1	Conservation coordinator	60,000	2000
1.1.2	Water waste prohibition	4,000	120
1.2.3	System water audits, leak detection and repair	4,000	48
1.3	Metering with commodity rates for all new connections and retrofit of existing connections	In other dept. costs	0
1.4	Conservation pricing	4,000	20
2.1	Public information programs	5,800	110
2.2	School education programs	10,788	60
3.1	Water survey programs for single-family residential and multi-family residential connections	10,000	208
3.2	Residential plumbing retrofit	3,500	16
3.3	High-efficiency washing machine rebate programs	4,700	10
3.4	Residential toilet replacement programs	8,750	84
3.5	WaterSense Specification for new development	0	0
4.0	Conservation programs for commercial, industrial, and institutional accounts	1,200	19
5.0	Large landscape conservation programs and incentives	3,200	88
	Total:	**$119,938**	**2,783**

2012 Budget Summary

BMP No.	BMP Name	Budget $	Estimated Staff Time (Hours)
1.1.1	Conservation coordinator	60,000	2,000
1.1.2	Water waste prohibition	5,000	150
1.2.3	System water audits, leak detection and repair	4,000	48
1.3	Metering with commodity rates for all new connections and retrofit of existing connections	In other dept. costs	0
1.4	Conservation pricing	2,000	10
2.1	Public information programs	8,000	100
2.2	School education programs	10,000	50
3.1	Water survey programs for single-family residential and multi-family residential connections	10,000	200
3.2	Residential plumbing retrofit	3,000	20
3.3	High-efficiency washing machine rebate programs	5,000	10
3.4	Residential toilet replacement programs	8,300	80
3.5	WaterSense Specification for new development	0	0
4.0	Conservation programs for commercial, industrial, and institutional accounts	2,000	20
5.0	Large landscape conservation programs and incentives	3,000	100
	Total:	**$120,300**	**2,788**

2013 Budget Summary

BMP No.	BMP Name	Budget $	Estimated Staff Time (Hours)
1.1.1	Conservation coordinator	60,000	2,000
1.1.2	Water waste prohibition	5,000	150
1.2.3	System water audits, leak detection and repair	4,000	48
1.3	Metering with commodity rates for all new connections and retrofit of existing connections	In other dept. costs	0
1.4	Conservation pricing	2,000	10
2.1	Public information programs	8,000	100
2.2	School education programs	10,000	50
3.1	Water survey programs for single-family residential and multi-family residential connections	10,000	200
3.2	Residential plumbing retrofit	3,000	20
3.3	High-efficiency washing machine rebate programs	5,000	10
3.4	Residential toilet replacement programs	8,300	80
3.5	WaterSense Specification for new development	0	0
4.0	Conservation programs for commercial, industrial, and institutional accounts	2,000	20
5.0	Large landscape conservation programs and incentives	3,000	100
	Total:	**$120,300**	**2,788**

2014 Budget Summary

BMP No.	BMP Name	Budget $	Estimated Staff Time (Hours)
1.1.1	Conservation coordinator	60,000	2,000
1.1.2	Water waste prohibition	5,000	150
1.2.3	System water audits, leak detection and repair	4,000	48
1.3	Metering with commodity rates for all new connections and retrofit of existing connections	In other dept. costs	0
1.4	Conservation pricing	2,000	10
2.1	Public information programs	8,000	100
2.2	School education programs	10,000	50
3.1	Water survey programs for single-family residential and multi-family residential connections	10,000	200
3.2	Residential plumbing retrofit	3,000	20
3.3	High-efficiency washing machine rebate programs	5,000	10
3.4	Residential toilet replacement programs	8,300	80
3.5	WaterSense Specification for new development	0	0
4.0	Conservation programs for commercial, industrial, and institutional accounts	2,000	20
5.0	Large landscape conservation programs and incentives	3,000	100
	Total:	**$120,300**	**2,788**

Section 5: Plan Implementation

OVWC reports plan implementation annually through the CUWCC reporting website.

Section 6: Exemption Process

OVWC implements all CUWCC BMPs and is not requesting exemptions at this time.

Section 7: Regional Criteria

There are no Regional Criteria at this time. If in the future regional criteria are considered, they will be developed as a separate document.

Attachment A

Orange Vale Water Company Facilities Map

Attachment B

Orange Vale Water Company Rate Structure

Attachment C

Orange Vale Water Company Sample Bill

Attachment D

Orange Vale Water Company Water Shortage Contingency Plan

Attachment E

Orange Vale Water Company Rules and Regulations

Attachment F

Groundwater Management Plan

Attachment G

Annual Potable Water Quality Report

Attachment H

2009-2010 CUWCC Annual Report

Attachment I

Board Resolution Adopting Plan

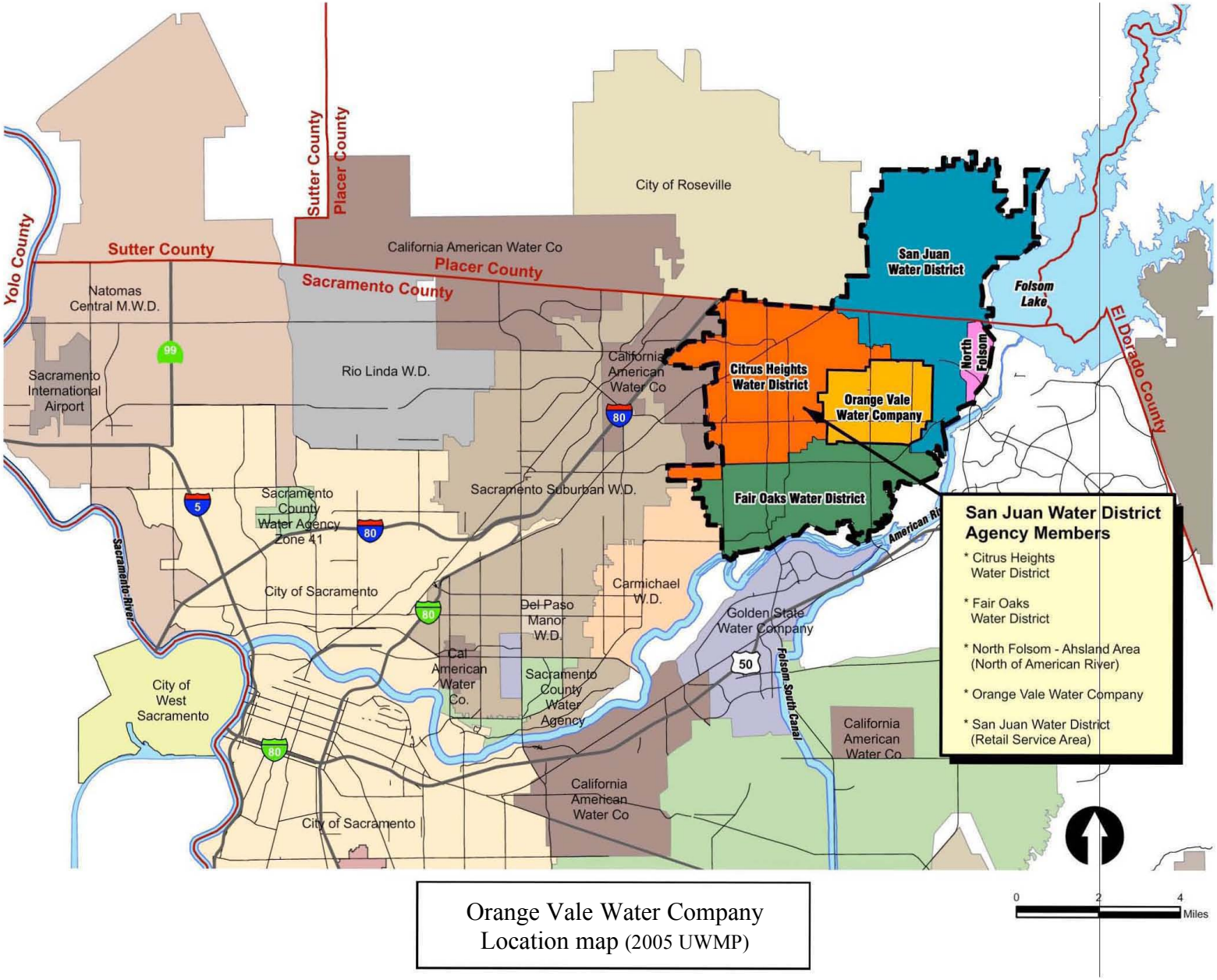
To be inserted upon final plan approval from USBR.

Attachment J

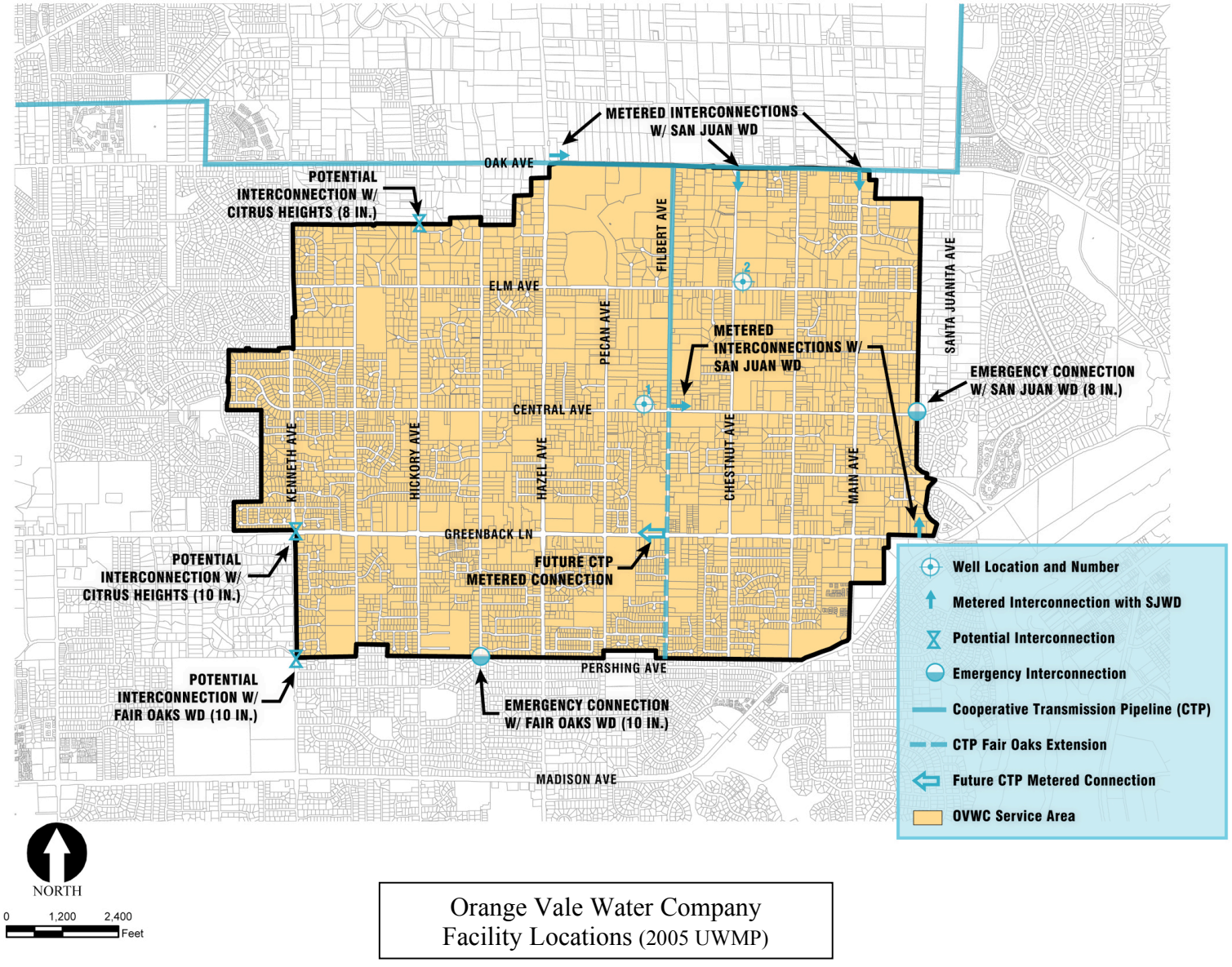
USBR Comment Response Letters

Attachment K

2009-2010 CUWCC Annual Coverage Report



Orange Vale Water Company
Location map (2005 UWMP)



Orange Vale Water Company
Facility Locations (2005 UWMP)

Orange Vale Water Company
Metered Water Rate Charge Bi-Monthly
(100 CF = 1 Unit = 748 Gallons)

Metered Rates for Year 2009
(Basic Rate Charged on Size of Meter)

Single Family Residential

Tier 1	**0.33**	**0 – 36 Units**
Tier 2	**0.42**	**37 – 170 Units**
Tier 3	**0.50**	**171 +**

Multi-Family & Non-Residential
(Uniform Rate)

$0.38 Per Unit

Meter Size	Bi-Monthly
Up to 1”	$26.70
1-1/2”	52.90
2”	84.35
3”	168.20
4”	262.50
6”	524.60
8”	943.80
10”	1,520.00
12”	2,254.00

- **Commodity charge is calculated by number of units used + basic rate + Assessment**
- **Assessment is $7.00 per parcel of up to 5 acres in size plus $7.00 for additional acreage**
- **Water rates are subject to change at any time upon Board approval**

ORANGE VALE WATER COMPANY
9031 Central Avenue
Post Office Box 620800
OrangeVale, California 95662-0800

Office (916) 988-1693

BOARD MEETINGS
District Office
1st Tuesday of every month / 6:00 PM
If you desire to address the board, please call (24) twenty-four hours in advance to be placed on the agenda.

A Payment Drop Box Is Located In Front of The Office For Your Convenience

AUTO5-DIGIT 95662 10 PS5 55062RA08-A-1
2322 1 AV 0.335

Business Hours: Monday through Friday 7:00 AM - 4:00 PM
Closed Between 12:00 NOON and 1:00 PM

Emergency service and repair twenty-four (24) hours seven (7) days a week (916) 988-1693

ACCOUNT ACTIVITY - METERED RATE

Previous Balance	$38.65
Payments Received	-$38.65
Water	$25.74
Assessment	$7.00
Bi-Monthly Basic Rate	$26.70
TOTAL AMOUNT DUE:	**$59.44**

ACCOUNT INFORMATION

Account Number:	
Customer Name:	
Service Address:	
Parcel Number:	
Service Period:	05/06/09 - 07/06/09
Due Date:	08/01/09
Delinquent After:	08/20/09

METER READ DATA/SERVICE PERIOD

Meter	Size	Read Date/Service Period Previous	-	Current	Reading Previous	-	Current	Units	Days
12131188	1"	05/06/09	-	07/06/09	2513	-	2582	69	61

Please refer to reverse side for Tiered Rates and Annual Comparison

SPECIAL MESSAGE

Rebates are still available for replacement of toilets and high efficiency washing machines
Please contact the office for additional information

KEEP THIS PORTION FOR YOUR RECORDS

· TO INSURE PROPER CREDIT DETACH AND RETURN THIS PORTION IN THE ENCLOSED ENVELOPE ·

Water bills are due and payable upon receipt
and become delinquent after 4:00 PM on the 20th following the due date.
All accounts with an outstanding balance will be assessed a 10% penalty on the 21st.

☐ Please check this box and see reverse for change of address.

AMOUNT DUE: **$59.44**

Account Number:
Customer Name:
Service Address:
Parcel Number:

Service Period:	05/06/09 - 07/06/09
Due Date:	08/01/09
Delinquent After:	08/20/09

Please see reverse side to pay by Visa or MasterCard

MAKE CHECKS PAYABLE TO:
Orange Vale Water Company
P.O. Box 620800
OrangeVale, CA 95662-0800

PAYMENT OPTIONS: Payment may be made by mail, in person, by telephone, or on-line @ www.ubpayments.com/orangevale. For payment questions, please call the office (916) 988-1693.

DELINQUENT PENALTIES: Amounts unpaid by the delinquent date will incur a 10% penalty. At the time of delinquency, the Company may initiate procedures to discontinue service until all charges are paid in full. Please contact our customer service department for payment arrangements.

RETURNED CHECKS: Orange Vale Water Company will charge a returned check fee on all returned checks.

Unless payment is made prior to such delinquency, a Notice of Default may be recorded and you will have ninety (90) days in which to redeem by paying the delinquent amount plus penalty, interest, and reasonable foreclosure costs incurred and attorneys' fees. If you fail to so redeem, your property may be sold to recover such amounts for the Corporation and any excess obtained would be payable to you. Additionally, your shares may be forfeited to the Corporation along with all rights thereto, pursuant to Corporations Code Section 14303, and you may be subject to personal liability for such delinquent amounts, interest, penalties, fees and costs. **NO WATER FROM THE CORPORATION MAY BE USED ON LANDS WHICH ASSESSMENT OR WATER CHARGE REMAINS DELINQUENT.**

ORANGE VALE WATER COMPANY

Metered Bi-Monthly Rate Schedule - Basic Rate is based on Meter Size

(100 Cubic Feet = 1 Unit = 748 Gallons)

SINGLE FAMILY RESIDENTIAL			METER SIZE	BI-MONTHLY BASE CHARGE
	UNITS	RATE		
Tier #1	0 - 36 Units	$0.33	Up To 1"	$26.70
Tier #2	37 - 170 Units	$0.42	1 ½"	$52.90
Tier #3	171 & Up	$0.50	2"	$84.35

MULTI-FAMILY & NON-RESIDENTIAL
(UNIFORM RATE)

$0.38 Per Unit

WATER CHARGE CALCULATION = NUMBER OF UNITS USED MULTIPLIED BY THE TIER RATE PLUS BI-MONTHLY BASIC CHARGE

ANNUAL COMPARISON

Meter	This Year Units	This Year Days	Last Year Units	Last Year Days
12131188	69	61	94	58

FOR CREDIT CARD PAYMENTS: VISA ❑ MasterCard ❑

Visa / MasterCard Number: _____ Security Code _____ Expiration Date _____ Amount _____

Cardholders Signature _____ ( ) Daytime Telephone Number _____

PRINT NAME _____

SERVICE ADDRESS _____

FOR CHANGE OF ADDRESS:

Name _____

Address _____

City _____ State _____ Zip _____

Telephone Number _____

ORANGE VALE WATER COMPANY
9031 Central Avenue
OrangeVale, CA 95662-0800
(916) 988-1693

MANDATORY REQUIREMENTS – STAGES 1-5

WATER CONSERVATION STAGE DECLARATION

Upon declaration or amendment by the Board of Directors of a specific Stage in effect as defined in Section I, the following mandatory water conservation requirements shall be in effect.

The declaration of Short-Term Stage 4 or Stage 5 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short –term declaration is for water shortage conditions expected for a duration of 45 days or less.

STAGE 1 – NORMAL WATER SUPPLY

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.

6. Washing streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health, esthetic or sanitary purposes, is prohibited.

7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.

STAGE 2 - WATER ALERT

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.

6. Washing streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health, esthetic or sanitary purposes, is prohibited.

7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.

8. Reduce landscape and pasture irrigation by 5 to 10%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 90 to 90% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.

9. Reduce indoor water use by 5 to 10%. Contact your water provider for tips and techniques to reduce indoor water use.

10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

STAGE 3 – WATER WARNING

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.

6. Washing streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health, esthetic or sanitary purposes, is prohibited.

7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.

8. Reduce landscape and pasture irrigation by 11 to 25%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 75 to 89% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.

9. Reduce indoor water use by 11 to 25%. Contact your water provider for tips and techniques to reduce indoor water use.

10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

11. Restaurants shall serve water only upon request.

STAGE 4 – WATER CRISIS: SHORT-TERM

The declaration of Short-Term Stage 4 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.

6. Washing streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health, esthetic or sanitary purposes, is prohibited.

7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.

8. Reduce landscape and pasture irrigation by 26 to 50%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.

9. Reduce indoor water use by 26 to 50%. Contact your water provider for tips and techniques to reduce indoor water use.

10. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Use of reclaimed water for construction purposes is encouraged.

11. Restaurants shall serve water only upon request.

12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.

13. Installation of new turf or landscaping is prohibited.

STAGE 4 – WATER CRISIS: LONG-TERM

The declaration of Long-Term Stage 4 water conservation requirements will be by the agency's Board of Directors in a regular or special session. A long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.

6. Washing streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health or sanitary purposes, is prohibited.

7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.

8. Reduce landscape and pasture irrigation by 26 to 50%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration (ET) rate. Drip irrigation systems are **NOT** excluded from this requirement.

9. Reduce indoor water use by 26 to 50%. Contact your water provider for tips and techniques to reduce indoor water use.

10. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. Use of reclaimed water for construction purposes is encouraged.

11. Restaurants shall serve water only upon request.

12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.

13. Installation of new turf of landscaping is prohibited.

14. N/A

15. Water Crisis/Emergency tiered pricing will be implemented.

16. No commitments will be made to provide service for new water service connections.

STAGE 5 – WATER EMERGENCY: SHORT-TERM

The declaration of Short-Term Stage 5 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired immediately. Water service will be suspended until repairs are made.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.

6. Washing streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health or sanitary purposes, is prohibited.

7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.

8. Landscape and pasture irrigation is prohibited.

9. Reduce indoor water use by more than 50%. Contact you water provider for tips and techniques to reduce indoor water use.

10. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes in encouraged.

11. Restaurants shall serve only upon request.

12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.

13. Installation of new turf or landscaping is prohibited.

14. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

STAGE 5 – WATER EMERGENCY: LONG-TERM

The declaration of Long-Term Stage 5 water conservation requirements will be by the agency's Board of Directors in a regular or special session. A long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Leaking customer pipes or faulty sprinklers shall be repaired immediately. Water service will be suspended until repairs are made.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.

6. Washing streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health or sanitary purposes, is prohibited.

7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.

8. Landscape and pasture irrigation is prohibited.

9. Reduce indoor water use by more than 50%. Contact you water provider for tips and techniques to reduce indoor water use.

10. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes in encouraged.

11. Restaurants shall serve only upon request.

12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.

13. Installation of new turf or landscaping is prohibited.

14. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

15. Water Crisis/Emergency tiered pricing will be implemented.

16. New connections to the District water distribution system will not be allowed.

ORANGE VALE WATER COMPANY
WATER MANAGEMENT PLAN
Resolution No. 2012 - 001

WHEREAS, existing law requires each urban water supplier receiving water supplies from the United States Bureau of Reclamation to prepare and adopt a Water Management Plan to update its current Plan at least once every five years;

WHEREAS, existing law requires an urban water supplier to submit the Water Management Plan to the United States Bureau of Reclamation; and

WHEREAS, Orange Vale Water Company is an urban water supplier receiving water supplies from the United States Bureau of Reclamation through the San Juan Water District, and has therefore prepared the 2010 Update to the Water Management Plan for submittal to the United States Bureau of Reclamation;

NOW, THEREFORE, BE IT FURTHER RESOLVED, BY THE BOARD OF DIRECTORS OF ORANGE VALE WATER COMPANY that the Water Management Plan is hereby adopted and the General Manager is authorized and directed to file said Plan Update with the United States Bureau of Reclamation.

Passed and adopted at the regular meeting of the Board of Directors of the Orange Vale Water Company on May 1, 2012.

Ayes 5
Nos 0
Abstain 0

Signature _____
Print Name SHARON L. WILCOX
Title MAY 1, 2012

ATTEST: _____
Russell A. Castilone, President
Board of Directors
Orange Vale Water Company